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Effect of the Soil Dehydration Temperature on the Vapor-Phase Sorption of p-xylene

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Abstract

The effect of two methods for the preparation of soil samples for sorption experiments-hard (dehydration at 105°C) and mild (drying over P2O5 at 20°C in vacuum) drying-on the values of the vaporphase sorption of p-xylene was studied depending on the content of organic matter in the soil. It was shown with dark gray forest and chernozemic soils as examples that the hard drying of soil samples taken from the upper layer of the humus profile with a high content (>4%) of organic carbon decreased their sorption capacity in the range of 0-5% by 7-81%. Therefore, the method is unsuitable for these soils. It was also found that the mild method of soil preparation had obvious analytical advantages. © 2010 Pleiades Publishing, Ltd.

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